

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

A NEGLECTED FERN PAPER.¹

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While preparing a brief account of the ferns and fern allies of the District of Columbia for publication two or three years ago the writer had his attention called by Mr. C. A. Weatherby to the fact that the common gray polypody or resurrection fern of the southern United States and tropical America long known as *Polypodium incanum* Swartz, but more recently as *P. polypodioides* (L.) Hitchc., ought properly to be known as *P. polypodioides* (L.) Watt, Watt having been the first to transfer to *Polypodium* the Linnaean species *Acrostichum polypodioides* in a little known paper published long ago. The reference to the article in question was supplied subsequently by Miss Mary A. Day, Librarian of the Gray Herbarium. Besides the instance just mentioned there are in this paper several other transferred names which appear to have been completely overlooked by fern writers, including Christensen in the Index Filicum. It seems worth while to place these omissions on record.

The paper under discussion was published in the Canadian Naturalist, series II, vol. 13, pp. 157-160, 1867, under the title, "Review. Ferns: British and Foreign; by John Smith, A. L. S." The review proper (pp. 157, 158), signed "W.," is followed by a fern list of about two and one-half pages of fine print in double column, with the following prefatory remark by Watt: "We append a catalogue of northern North American ferns, giving our views of the nomenclature and classification of this order; it includes all the species mentioned by Michaux and by Dr. Gray, and most of those mentioned by Pursh and by

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Hooker." The authorship of the entire paper is clearly indicated by the running head of page 159, "Watt—Catalogue of Ferns." The "list" is not only full of interesting comments but includes ample synonymy in condensed form. The Linnaean references are to the second edition of the *Species Plantarum* (1763).

The transferred names, most of which were coined later and independently by other writers, are as follows:

Polypodium polypodioides (L.) Watt, *Canad. Nat.* II. 13: 158. 1867.

This is a transfer of *Acrostichum polypodioides* L., antedating *P. polypodioides* (L.) Hitchc., 1893, applied to the same plant.

Phegopteris connectile (L.) Watt, *op. cit.* 159.

A transfer of *Polypodium connectile* Michx., 1803, which is usually regarded as a synonym of *Polypodium phegopteris* L., 1753. This is *Dryopteris phegopteris* (L.) C. Chr., 1905.

Phegopteris rhaetica (L.) Watt, *op. cit.* 159.

This, which antedates *Phegopteris rhaetica* Pérard, 1869, is a transfer of *Polypodium rhaeticum* L., with citation of three synonyms and of two collections from western North America. *Polypodium rhaeticum* of Linnaeus is an aggregate, containing European elements usually referred to *Athyrium filix-femina* (L.) Roth and *Athyrium alpestre* (Hoppe) Rylands. The American plants referred to by Watt are presumably *Athyrium americanum* (Butters) Maxon, 1918.

Phegopteris montana (Vogler) Watt, *op. cit.* 159.

This is clearly *Dryopteris oreopteris* (Swartz) Maxon, 1901, often known as *Dryopteris montana* (Vogler) Kuntze, 1891.

Dryopteris*¹ *spinulosa dilatata (Hoffm.) Watt, *op. cit.* 159.

A transfer of *Polypodium dilatatum* Hoffm., 1795, antedating *D. spinulosa dilatata* (Hoffm.) Underw., 1893 = *Dryopteris dilatata* (Hoffm.) Gray, 1848. The name as written by Watt is "*D. spinulosa-dilatata*."

Dryopteris spinulosa (Retz.) Watt, *op. cit.* 159.

A transfer of *Polypodium spinulosum* Retz., 1795, antedating *D. spinulosa* (Retz.) Kuntze, 1891. The name is written by Watt as "*D. spinulosa-vera*," apparently to indicate the typical form of this variable species.

This is the common North American and Eurasian plant listed by Christensen as "*Dryopteris spinulosa* (Müll.) Kuntze" and as a transfer of *Polypodium spinulosum* Müll., 1767. The name transferred by Kuntze,

¹*Aspidium* is recognized by Watt as a genus with two sections, *Dryopteris* and *Polystichum*. In the enumeration of species these are given the rank of genera, the genus names being abbreviated to "*D.*" and "*P.*," and the species names changed to feminine form in the case of *Dryopteris*. Later in the same volume (p. 403, 1868) *Dryopteris* and *Polystichum* are taken up as fully valid genera, without any reference to *Aspidium*.

however, is that of Retzius, and it is questionable whether the substitution (by Christensen) of Müller as parenthetical authority in the Kuntze citation is justifiable. The Müller reference was known to Watt and apparently was regarded by him as that of the earliest publication, for at page 403 of the same volume (1868) he definitely lists the species as *D. spinulosa* (Müll.).

Dryopteris spinulosa remota (A. Br.) Watt, op. cit. 159.

The name is written by Watt "*D. spinulosa-remota*" and the entry is as follows:

"*Aspd. remotum* A. Br.; *Nephrodium r [emotum]* Hook. Br. Ferns, t. 22; *Aspd. Boottii* Tuckerman. Dr. Gray refers *Dryopteris remota* here (as *A. spinulosum* var. *Boottii*)—it may prove to be a distinct species; it is not well known to me."

According to Christensen's Index Filicum *Aspidium remotum* is *Dryopteris filix-mas* \times *spinulosa*. The plant of eastern North America formerly called *Aspidium Boottii* or *Dryopteris Boottii* is now regarded as a hybrid, *D. cristata* \times *intermedia* Dowell, 1908.

Dryopteris arguta (Kaulf.) Watt, op. cit. 159.

A proper transfer of *Aspidium argutum* Kaulf., 1824, *Nephrodium rigidum* var. *americanum* Hook., 1862, being cited as a synonym. This is the Pacific Coast plant which has usually been known as *Dryopteris rigida arguta* (Kaulf.) Underw., 1893. It is, however, specifically distinct from the European *D. rigida* and has recently been reinstated¹ by the writer as *D. arguta* (Kaulf.) Watt.

Dryopteris rigida (Hoffm.) Watt, op. cit. 159.

Watt's entry after this name is as follows:

"Not of Gray, l. c. 631. [1848.] *A. rigidum*, Swartz, 53. Attributed to North America by Mr. Benth—doubtless in error."

The reference here is clearly to the European plant which has been confused with its two American allies, *D. arguta* (Kaulf.) Watt and *D. cristata* \times *intermedia* Dowell.

Cystea bulbifera (L.) Watt, op. cit. 160.

A transfer of *Polypodium bulbiferum* L. This is the common plant of eastern North America generally known as *Cystopteris bulbifera* (L.) Bernh., 1806, or perhaps more properly as *Filix bulbifera* (L.) Underw., 1900.

Cystea montana (Lam.) Watt, op. cit. 160.

A transfer of *Polypodium montanum* Lam., 1778, partly by association with *Aspidium montanum* Swartz, 1801.

This is the boreal plant of Eurasia and North America known as *Cystopteris montana* (Lam.) Bernh. or *Filix montana* (Lam.) Underw., 1900.

¹Amer. Fern Journ. 1:3. 1921.